Newspaper Clips

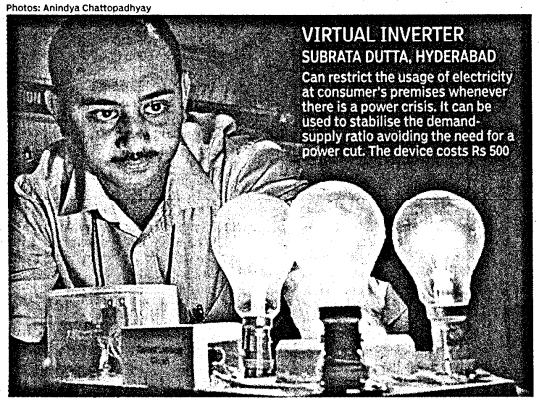
November 23, 2010

Times of India ND 23-Nov-10 p-3

Making life easy with THE POWER OF INNOVATION

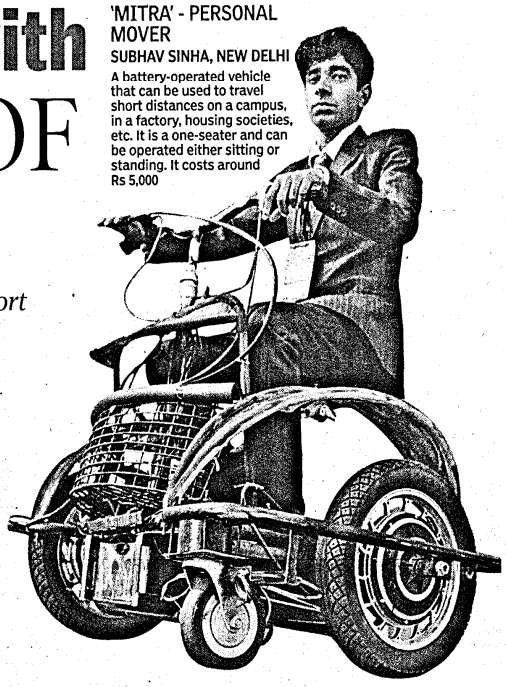
At least 50 simple but smart innovations that reduce effort and minimize costs were showcased at IIT Delhi

Photos: Anindya Chattopadhyay



VIRTUAL INVERTER
SUBRATA DUTTA, HYDERABAD
Can restrict the usage of electricity at consumer's premises whenever there is a power crisis. It can be used to stabilise the demand-supply ratio avoiding the need for a power cut. The device costs Rs 500

'MITRA' - PERSONAL MOVER
SUBHAV SINHA, NEW DELHI
A battery-operated vehicle that can be used to travel short distances on a campus, in a factory, housing societies, etc. It is a one-seater and can be operated either sitting or standing. It costs around Rs 5,000



Neha Pushkarna | TNN

Every engineering student dreads that long march from hostel to classroom early in the morning. But DCE graduate Subhav Sinha, wiser from personal experience, created a one-seat vehicle to cut short his distance.

"It took me 10 minutes to reach my classroom from my hostel every morning when I was studying in DCE two years ago," Sinha said. To save time, Sinha got inspired to make a personal mover. "The idea came while I was watching a cartoon programme. The personal mover, Mitra, is priced at a reasonable Rs 5,000. It can be used on campuses, factories, offices and housing societies. It is easy to manoeuvre and is battery-operated," he added. About 50 such need-based innovations were showcased at the second edition of I3 (India Innovation Initiative) National Fair held at IIT Delhi on Monday.

Students, engineers, teachers, scientists and researchers from across the country gathered at the fair with their simple and scientifically advanced innovations, which promise to reduce effort, increase efficiency and save costs. Mandar Ramesh Thite's Photo Clipping Machine is another such innovation. Tithe, who lives in Pune, had a unique problem at home. His father loves preserving newspapers. But one day no more space was left in the house to stock the papers. So Tithe began scanning them and how. "My father had been collecting newspapers for the past 40 years. Getting them scanned from the market would have cost us Rs 100 per paper," Thite said.

But Tithe thought out of the box to save costs. "I then made my clipping machine that has a digital camera fitted on a roller feeding device. The camera clicks the image of A3 size paper which appears in the connected computer." The machine now costs around Rs 10,000. Thite has already scanned about a thousand newspapers with it.

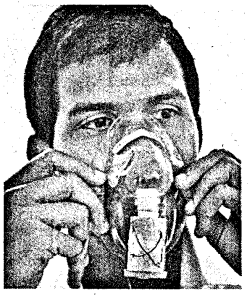
Kolkata's Subrata Dutta and Kondamudi Swarna Rekha from Andhra Pradesh are working on innovations to benefit the community — urban and rural respectively.

While Dutta has made a virtual inverter costing Rs 500 that can restrict the power usage in every household in case of power crisis. "It has to be taken up at a policy level and can form an alternative to power cuts by controlling the distribution of electricity," Dutta said. Rekha on the other hand is developing a network through which farmers will get an SMS if the water level in their fields dips below.

To fight the swine flu pandemic, professor Dhananjay P Mehendale, head of department of electronics at SP College, Pune, has made a special purifying mask. "It has diodes in a panel which generate ultraviolet light. The UV rays kills germs when air enters the mask and only clean air reaches the nose. The Indian Medical Association has certified it as promising. I will now put a UV shield to make it absolutely risk-free. It's going to provide safety in hospitals," Mehendale said. The fair also showcased a herbal mosquito repellent made of eucalyptus, tulsi and other herbs. "It is much safer than the repellents available in the market," said 18-year-old student of microbiology, Ayan Mukherjee, who helped his father in the innovation. These innovators were selected in various regional rounds for the national fair put together by CII, department of science and technology and Agilent Technologies.

neha.pushkarna@timesgroup.com

SANJEEVANI RESCUE KIT
LADKAT RAJENDRA VITTAL, PUNE
A patented safety box with 17 components ideal for taking along on a picnic. It can float on water, contains a rope that can help in case of drowning. The wooden planks can be joined to support a victim with spinal injury. The suction apparatus can pull out venom from a snake-bite



AIR-PURIFYING MASK
DHANANJAY P MEHENDALE, PUNE
Has a panel with diodes fixed in a cylindrical cavity that generates UV light. The light performs germicidal action on harmful micro-organisms

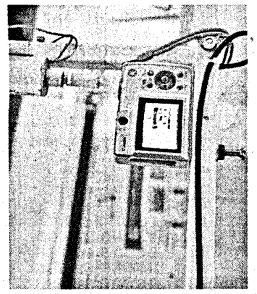


PHOTO CLIPPING MACHINE
MANDAR RAMESH TITHE, PUNE
It's a scanner that uses a digital camera and a standalone sheet feed system. It requires only 15 watts power to scan A3 size pages. Cost is Rs 10,000

FUEL-EFFICIENT STOVES
RAMESH S KIKKERI, MYSORE
It has three pans in which a typical South Indian meal — rice, sambhar and one vegetable — can be cooked simultaneously in rural areas

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Hurdles cleared for nuclear medical centre

TIMES NEWS NETWORK

New Delhi: Encroachments near Ram Manohar Lohia hospital, including jhuggi clusters housing more than 20 families, were demolished on Monday. The 2.25 hectare land, where the slumdwellers lived, has been given to Ram Manohar Lohia Hospital for building the first nuclear medical management centre in the country.

Though the Central Public Works Department (CPWD) had allotted the land for this purpose in 1992, work could not be started due to the encroachments. Last month, Union health minister Ghulam Nabi Azad sent a missive to Delhi chief minister Sheila Dikshit demanding immediate redressal.

People, who lived in the slums, alleged that their houses have been destroyed but no rehabilitation plan is in place. "We have been living here for more than 30 years. Now, the government has razed down our houses for building this hospital without providing us any alternative. We have lost our homes and have been left on our own to brave the cold," said Ramesh Kumar, one of the slumdwellers. "The urgent need for building the centre becomes evident in the backdrop of the infamous incident in Mayapuri earlier this year," said a health ministry official.

Times of India ND 23-Nov-10 p-17

On track@1600kph, car that travels faster than a bullet

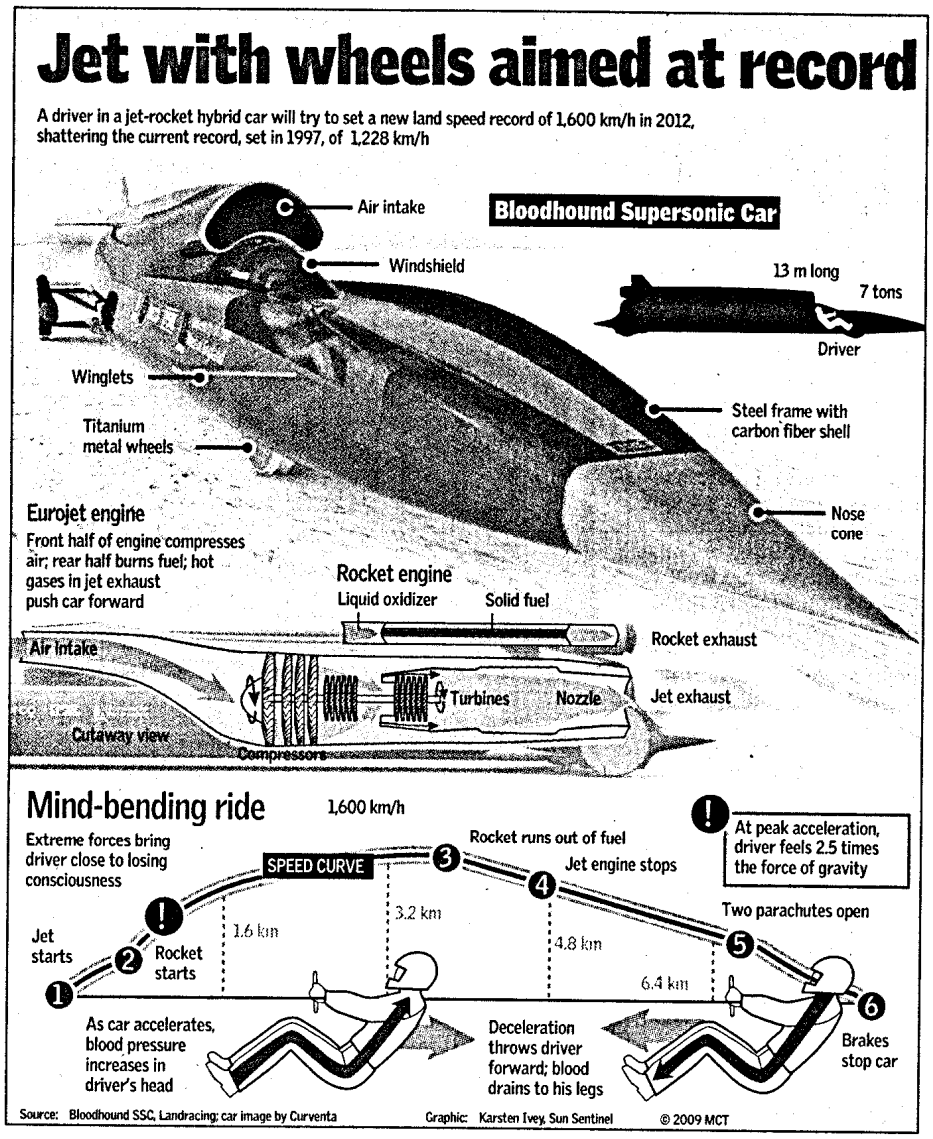
Dried-Up Lake Bed In SA Being Prepared To Test World's Fastest Car

London: Ever imagined a car that can travel faster than a bullet? Well, your fantasy will soon be a reality. British scientists have claimed that they are inching closer to develop by 2012 a car that can travel at more than 1,600km per hour.

The project to develop the world's fastest car powered by a jet engine and a rocket is well on target, Richard Noble, director of the project, said. Construction on the rear of the 'Bloodhound vehicle' will start in January, with an attempt on the World Land Speed record expected in 2012, he said.

"We've got companies all over the world wanting to sponsor the car," Noble told BBC News. "We've actually got more people who want to financially back this thing than we've got space for them." Noble has also made an appeal for people to help prepare the vehicle's race track — a dried-up lake bed in Northern Cape Province, South Africa, known as Hakskeen Pan. Before the Bloodhound car can hurtle across this flat expanse of land, it must be cleared of all loose stones, he said. A rock thrown up at 1,000 mph has the potential to do serious damage to the car's thin alloy bodywork and even cripple its four solid aluminium wheels.

With the assistance of the Northern Cape government, work has just started to prepare the track. A team of 300 local people has begun sweeping the 20km-long and 1.5km width area, picking up any stones in their path. Noble, an engineer, adventurer and a former wallpaper salesman, had reached 1,019kph when he drove a turbojet-powered car named Thrust 2 across the Nevada desert in 1983. In 1997, he headed the project to build the Thrust SSC (SuprerSonic Car), driven by Andy Green, an RAF pilot, at 1,228 kph. PTI



Times of India ND 23-Nov-10 p-17

Soon, a diving suit that helps humans breathe like fish

London: Humans may now be able go deep inside the waters, as a US scientist has designed a scuba suit would allow us to breathe liquid like fish.

Arnold Lande, a retired American heart and lung surgeon, has patented a scuba suit that would allow a human to breathe "liquid air", a special solution that has been highly enriched with oxygen molecules. "The first trick you would have to learn is overcoming the gag reflex," the Independent quoted Lande, a 79-year-old inventor from Missouri, as saying. "But once that oxygenated liquid is inside your lungs it would feel just like breathing air," he said.

© I Love Images/Corbis

LITTLE MERMAID

Lande envisages a scuba suit that would allow divers to inhale highly-oxygenated perfluorocarbons (PFCs) — a type of liquid that can dissolve enormous quantities of gas. The liquid would be contained in an enclosed helmet that would replace all the air in the lungs, nose and ear cavities. The CO_2 that would normally exit our body when we breathe out would be "scrubbed" from our blood by attaching a mechanical gill to the femoral vein in the leg.

Currently the only way divers can work for long spells in the deep is either from the safety of robotic vessels and submarines; or by using saturation diving, an incredibly complicated technique where divers have to be brought up to the surface in a pressurised container over a matter of weeks. With saturation diving, the deepest anyone has gone is 701m. Using scuba equipment the record is 318m, set by the South African diver. AGENCIES

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Is it a bird? Is it a plane? It's a fuel-efficient jet

Washington: Airplanes may soon start looking like birds as scientists are pondering over re-designing the current airplanes to make them more fuel-efficient.

Geoffrey Spedding, an engineer at the University of Southern California, and Joachim Huyssen at Northwest University in South Africa have made a simple modular aircraft in three configurations: a flying wing alone, then wings plus body, and then wings plus body and a tail.

It turned out that they had independently re-designed a bird shape, but without specific reference to anything bird-like.

The body of the aircraft is designed to minimize drag and, most critically, a small tail, which essentially serves to undo aerodynamic disturbances created by the body

They started with a configuration where the entire plane is one big wing. Then they added a body designed to minimize drag and, most critically, a small tail, which essentially serves to undo aerodynamic disturbances created by the body. Spedding and Huyssen analyzed the airflows and at various relative angles for the wings, body and tail, searching for ways to achieve greater lift (the better for carrying cargo) and lower drag (for higher fuel efficiency).

They made the stipulation that for any given mission, the best plane is the one that generates the least drag. Spedding recognized that the design of real planes is necessarily a compromise of many engineering, economic and psychological constraints.

"The most important point is that we may be wasting large amounts of fossil fuel by flying in fundamentally sub-optimal aircraft designs," said Spedding.

"At the very least, we can show that there exists an alternative design that is aerodynamically superior. One may argue that there is now an imperative to further explore this (and perhaps other) designs that could make a significant difference to our global energy consumption patterns," he added. AGENCIES

Hindustan Times Chandigarh 22.11.10 p-6

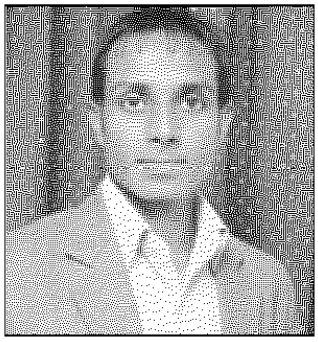
IIT graduate dreams big for children in HP

Naresh Kumar
naresh_85k@yahoo.in

SHIMLA: Not for himself, a young scientist Arun Kumar is dreaming big for the children in Himachal Pradesh and wants to develop a scientific temper among youth and wants to popularise Robotics and Space Science by opening a University in the state.

The 23-year old scientist, hailing from Jharkhand but based in Himachal Pradesh, is an IIT graduate from Khadagpur, and scientist (honorary) associated with National Aeronautics and Space Administration (NASA), California, USA and Indian Space Research Organisation (ISRO).

"I want to enlighten the students of India with the special knowledge which is the need of the country. I want to make robotics and space science popular among school children in India," Kumar told Hindustan Times.



Arun Kumar

PROPOSES TO OPEN A UNIVERSITY OF ROBOTICS AND SPACE SCIENCE IN ASSOCIATION WITH NASA AND ISRO

The scientist is not only a part-time teacher with IIT, Khadagpur now, but is also working with an internationally acclaimed space scientist JJ Rawal to develop the scientific temper in school children of Himachal.

Kumar happens to be the second Indian to score 100 per cent in two subjects opted for Scholastic Aptitude Test (SAT) and first to score 100 per cent in Physics.

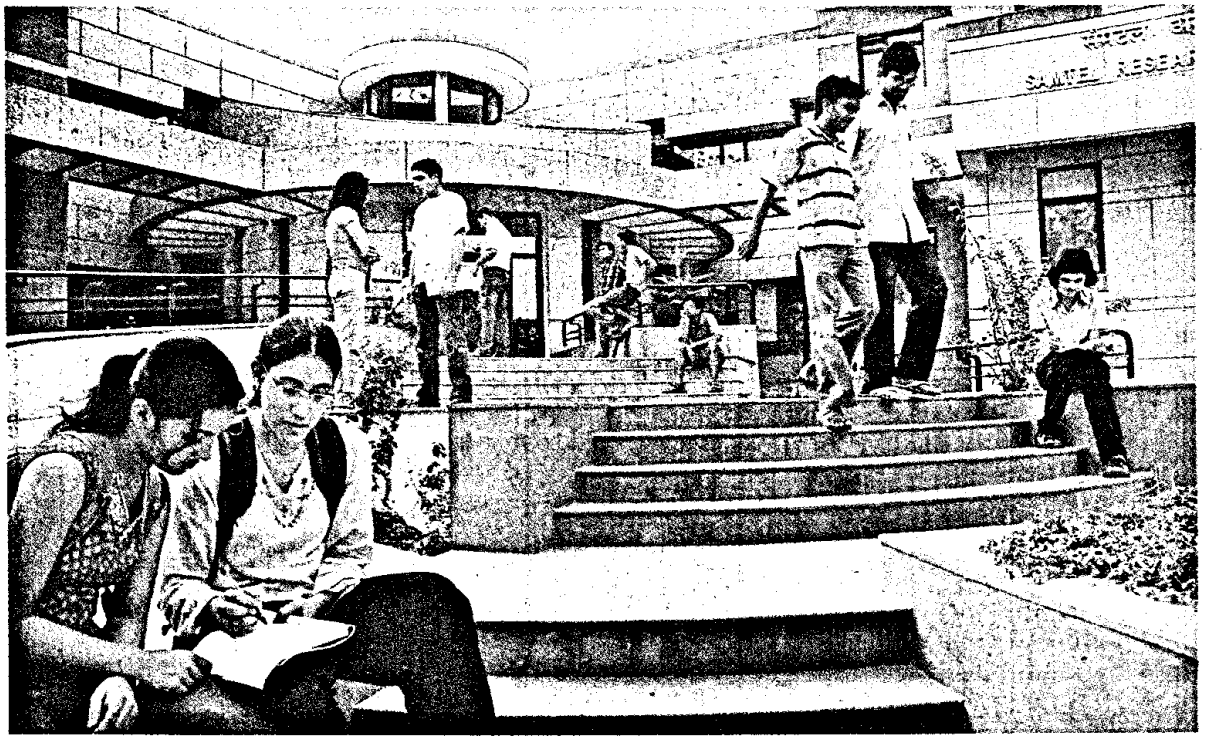
Kumar has given up various lucrative jobs in the USA and multinational companies to fulfill his dream.

He has purchased land in Solan district to set up the University on Robotics and Space Science and has also submitted a proposal to the University Grants Commission (UGC), seeking a go ahead.

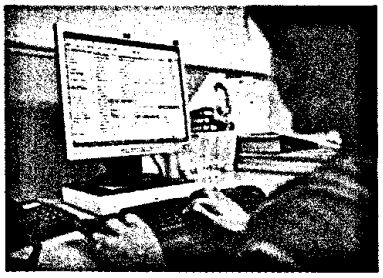
"The University will be the first in India as well as in Asia where Robotics and Space Science will be taught as a specialised subject as per NASA guidelines. Other subjects will also be taught besides this in the University. We will have an association with NASA and ISRO as well," he added.

Kumar had recently organised a camp for two schools of Solan district on roboting, space science and star gazing along with JJ Rawal.

Mail Today ND 23/11/2010 P-14



Students allege the institution is attempting to redirect blame for student suicides away from the pressure it places on them.



IIT-Kanpur restricts Net use at night

By **Piyush Srivastava** in Lucknow

The Indian Institute of Technology Kanpur (IIT-Kanpur) has blamed the recent suicides of its students on Internet usage and decided to restrict web browsing between midnight and 8 am.

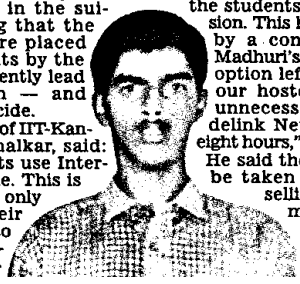
Last week, 22-year-old Madhuri Sale, a fourth year civil engineering student, hanged herself from the ceiling — taking the number of students who have committed suicide on the campus since 2005, to six.

However, several students see the new measure as the authorities' attempt to shrug off their responsibility in the suicides, alleging that the undue pressure placed on the students by the institute frequently lead to depression — and sometimes suicide.

The registrar of IIT-Kanpur, S.S. Kashalkar, said: "Many students use Internet all the time. This is apparently not only affecting their studies, but also creating unnecessary complications in their lives."

"They don't get enough sleep which results in lack of concentration. It reflects in their results and the students slip into depression. This has been reported by a committee probing Madhuri's suicide. The only option left with us to save our hostel inmates from unnecessary stress is to delink Net connection for eight hours," Kashalkar added.

He said the approval would be taken from the counselling cell of faculty members and the student's senate.



Gagan Patnam Suman.

However, a number of students said Madhuri committed suicide because she was a victim of regionalism.

"She was not fond of using the Internet. Every time a student commits suicide, the management comes out with a funny plan. They never realise that most students who end their lives here perform very well till the four or fifth semester. But they get poor grades in the sixth and seventh semesters," said a student on condition of anonymity, adding: "This is merely because of the high handedness of some faculty members."

Internet blamed for poor academic performance

"She used to tell me that IIT-Kanpur was infected with regionalism. This feeling is more intense among teachers. So the students are divided according to their region of origin," Madhuri 's mother, Shantamma, said.

A student of Madhuri's batch pointed out that in January 2009, IIT-Kanpur had announced revising procedure of promotion from one semester to other to reduce students' stress.

The decision was taken after Ganga Patnam Suman, an M.Tech final semester student, had committed suicide. But the initiative has not been implemented properly.

"The authorities are diverting attention from the actual issue of high handedness of the faculty members and victimisation of the students," said a M.Tech student.

The student added: "Several students had said instead of attending the classes, they were more interested in accessing better reading materials from the Internet."

The efficacy of the move remains to be seen. When IIT-Delhi similarly disconnected the Internet between 1 and 5 am in 2008, the students got around the measure by procuring data cards.

DIFFERING OPINIONS

"Faced with the barrage of information, the only way to get them to focus on a single task is to take away all stimulation. The constant exposure to so much stimulation hampers their creativity"

— PSYCHIATRIST RAJAT MITRA

"Kids today are getting very distracted by new technology. The devices are really tiny and they can zone out and message one other or be on Twitter or Facebook. It can be a real problem"

— A CONCERNED TEACHER

"Twitter and Facebook and cellphones are wonderful tools which do serve a purpose, but by and large what I feel is that they affect children in a negative fashion. It promotes instant gratification"

— AUTHOR NIMISH DUBEY

"The problem is not that we can't focus but that maybe we shouldn't have to. We're learning things that people in the previous generation never heard of, so they think it's a bad thing"

— DU STUDENT RAMESH GUPTA

Hindustan Times ND 23/11/2010 P-4

CREATIVEMINDS

India's young innovators showcase their best designs at IIT-Delhi fair

Joyeeta Ghosh
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NEW DELHI: What started out as a project while studying BTech at the Indian Institute of Technology (IIT) Kharagpur has helped 25-year-old Shwetank Jain scale entrepreneurial heights.

On Monday, Jain's Intelligent Power Conditioner with Hybrid System Integrator won the first prize at the India Innovation Initiative (i3) National Fair held at IIT-Delhi. The fair is organised in association with Agilent Technologies, Department of Science and Technology, government of India and Confederation of Indian Industry.

Called P2 Power Solutions, the idea of the venture, whose aim was to deliver innovative engineering solutions with specific focus on energy efficiency and power quality enhancement, was incubated in 2005 by Jain and his friends.

"Most industries face problems in power supply. With increasing use of automated machines it was imperative for the industries to have uninterrupted power supply. Every time there is a disruption, the operational costs go up. This mechanism ensures all such issues are taken care of. It also helps in reduction of noise pollution and is almost maintenance free," said Jain.

A rescue kit, Sanjeevani, being demonstrated at the i3 National Fair in IIT-Delhi on Monday. ARIJIT SEN/HT PHOTO

Nandan Kumar, Sudarshan Rajagopal and Sankamesh Ramaswamy who bagged the second prize have developed an automated machine to manufacture three-dimensional non-woven fibrous structure for medical applications.

"Cotton balls used for medical applications often have very short fibres which are transferred from the surface during cleaning of surgical wounds which could cause infection. Our product is hollow from inside which provides more space for absorption of body fluids," said Kumar, a textile engineer.

Around 50 innovators, who showcased their creations, were chosen out of a total of nearly 1,000 entries from across the country.

"We introduced i3 last year with the objective to provide innovative minds a platform to convert viable ideas into reality," said Parmeet Ahuja, president and country general manager, Agilent Technologies India.

OTHER INNOVATIONS

- A herbal mosquito repellent that uses tulsi and camphor
- A microscope fitted with a camera that enables an entire class to conduct experiment with one microscope
- Sanjeevani, a rescue kit that would help an individual save himself in case of a disaster before any help like ambulance or fire brigade reaches him
- A cost-effective and energy efficient photo-clipping machine that can be used to scan images for libraries and archives

Hindu ND 23/11/2010 p-5

Indian scientific team reaches South Pole

P. Sunderarajan

NEW DELHI: An eight-member Indian scientific team reached the South Pole on Monday and hoisted the tricolour at 1.30 a.m.

Speaking to journalists here in the evening through satellite phone, Rasik Ravindran, head of the team and Director of the National Centre for Antarctic and Ocean Research, said: "We are feeling at the top of the world standing at the bottom of the world."

Dr. Ravindran said all the members of the team were safe and sound and in high spirits, even as the temperature outside was minus 70 degrees Celsius.

The team – consisting of five scientists, including Dr. Ravindran, a doctor, and two vehicle engineers – reached the South Pole after a gruelling nine-day traverse across Antarctica.

Starting from the Indian research station Maitri, 2,350 km from the South Pole, on November 13, the team travelled in four specialised Arctic trucks designed to handle not only harsh weather conditions but also icy and crevasse-infested terrain.

Notwithstanding all the careful planning, the journey was not a totally smooth affair. A senior official in the Ministry of Earth Sciences (MoES), which is in charge of the Indian Antarctic research programme, said the team had some tense moments when the axle of a vehicle broke.

It was a daunting task considering that the broken axle had to be taken out and replaced with a fresh one manually with hands heavily padded with gloves, but the team did it.

"Try changing an axle with bare hands in Delhi. That itself is a difficult task. Imagine doing the same thing with icy winds blowing all round and you have to do it with your hands heavily padded with gloves. You can't take off the gloves even for a few moments," the official said.

The scientists also had to step out every now and then to collect meteorological and other data. The science component of the expedition includes the rising of ice cores at regular intervals for the study of variability of snow chemistry, collecting information on bed rock topography and sub-surface ice structure using ground penetrating radars, and studying the glacial-geo-morphological landforms along the route.

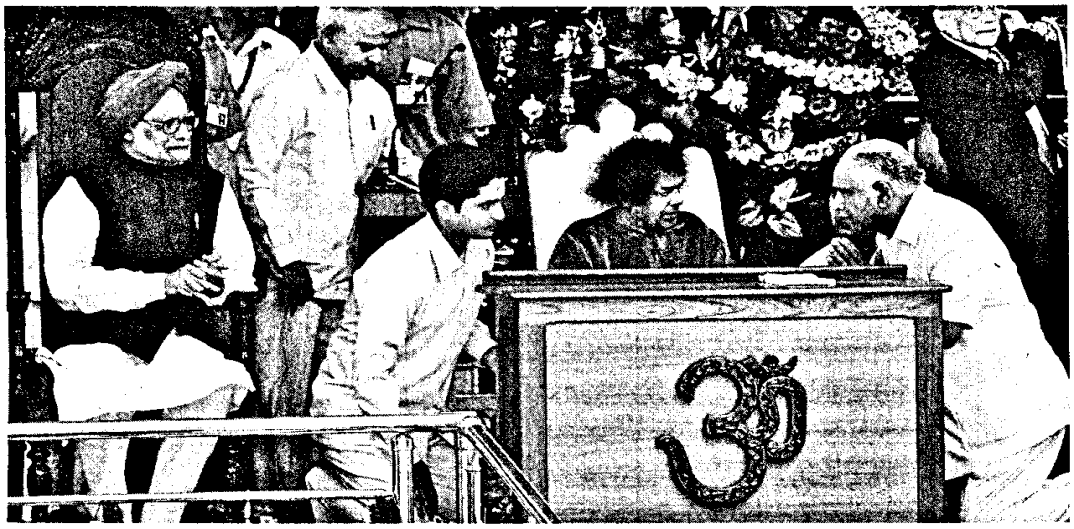
The team will stay at the South Pole till Wednesday to conduct more research. "We hope to leave here on November 26 and return to Maitri by December 6," Dr. Ravindran said.

MoES Secretary Shailesh Nayak said the expedition was not just about going to the South Pole. "It could also help a lot in understanding the Indian monsoon better as studies have shown that weather and climate in Antarctica could have an influence on the phenomenon of Indian Ocean Dipole [IOD], which has an effect on the monsoon," he said.

IOD is an irregular oscillation of sea-surface temperatures in which the western Indian Ocean becomes alternately warmer and then colder than the eastern part of the ocean.

A positive phase of IOD – which sees greater-than-average sea-surface temperatures in the western Indian Ocean region, with a corresponding cooling of waters in the eastern Indian Ocean – has been found to be beneficial for the monsoon. A reversal or a negative phase, in turn, is found to have an adverse impact.

Manmohan for changing varsity curriculum



As Prime Minister Manmohan Singh watches, Karnataka Chief Minister B.S. Yeddyurappa seeks the blessings of Satya Sai Baba at the 29th convocation of Sri Satya Sai Institute of Higher learning in Puttaparthi on Monday. – PHOTO: G. KRISHNASWAMY

M. Rajeev

- **'Varsities should sustain quality of education'**
- **Showers praises on Sai Baba for his service to poor**

PUTTAPARTHI (ANANTAPUR): Prime Minister Manmohan Singh on Monday said there was need for a change in the university curriculum that would enable a shift in the students' ability to meet the challenges posed by a rapidly growing economy and changing policies.

Delivering the convocation address at the 29th convocation of the Satya Sai Institute of Higher Learning (SSIHL), a deemed university, here, Dr. Singh said: "Students should be in the forefront in addressing the changes of the present day. Accelerated changes in technology are leading to new challenges and students should focus on breaking new path that others will do well to follow."

The convocation coincided with the 85th birthday celebrations of Sai Baba that began last week.

Andhra Pradesh Chief Minister K. Rosaiah; Karnataka Chief Minister B.S. Yeddyurappa; Tamil Nadu Deputy Chief Minister M.K. Stalin; the former Maharashtra Chief Minister, Ashok Chavan; Punjab Governor Shivraj Patil; Andhra Pradesh Governor E.S.L. Narasimhan; Tripura Governor D.Y. Patil; Tata Sons Chairman Ratan Tata; and TVS group Chairman Venu Srinivasan were among those the high profile personalities present.

Mr. Yeddyurappa, who is in the midst of a political crisis, was seen exchanging pleasantries with Dr. Singh and speaking to Sai Baba.

Dr. Singh said the country was already renowned in several areas, including information technology, biotechnology, space and nuclear sciences and it was important for varsities to sustain the quality of education. Given the larger role played by the country in world affairs, emphasis should be on creating systems that not only provided opportunities to youth the country, but also enabled them on a global scale.

While appreciating the emphasis laid on scientific research by SSIHL, he said this should not be restricted to theoretical world. History, economics, humanity and the realm of culture should also be given equal importance. He complimented the graduating students, saying their lives would not be complete unless the knowledge was shared with the less privileged and less fortunate.

Dr. Singh expressed concern that individuals and institutions, who had the means to take up philanthropic activities, were not emulating the likes of Sai Baba in serving the less privileged. He showered praises on Sai Baba for the service rendered by him to the poor by offering them education and health services free of cost.

Sai Baba exhorted the graduates to proceed in their lives with sacrifice as the first principle, and build a social status for themselves where they could live harmoniously with others.

When Manmohan obliged Yeddyurappa

Neena Vyas

NEW DELHI: Was it a political signal or a simple case of hitching a free ride that made Karnataka Chief Minister B.S. Yeddyurappa fly along with the Prime Minister on his special aircraft?

On Monday, both found themselves at the Sri Sathya Sai Institute of Higher Learning at Puttaparthi in Andhra Pradesh, where Manmohan Singh delivered the 29th convocation address and Mr. Yeddyurappa sought the blessings of Sri Sathya Sai Baba.

After the event, the Chief Minister, who had already been summoned to the capital by the Bharatiya Janata Party high command, urged Dr. Singh to accommodate him on the special plane, said PMO officials. "Naturally, a polite Prime Minister agreed."

While Dr. Singh landed in Delhi in the midst of a continuing deadlock with the Opposition on the issue of a joint parliamentary committee to probe the 2G spectrum scam, Mr. Yeddyurappa's arrival in the capital was eagerly awaited by senior BJP leader Arun Jaitley – who has been given the task of extracting from him a promise to vacate his seat after days of scandalous disclosures of land allotment to numerous relatives.

After arriving here, Mr. Yeddyurappa preferred to confer with his party MPs from Karnataka before meeting Mr. Jaitley, at which, according to party sources, Mr. Jaitley was to make an assessment of the legal gravity of the scandals related to allotment of land to his relatives and to promoters of business interests of his kin.

Finally, Mr. Yeddyurappa said he wished to go to the Vaishnodevi shrine, possibly on Tuesday.

Whatever be the outcome of the Karnataka drama, sources in the BJP say the authority of the BJP central leadership stands diminished.